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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,730	10/24/2003	Luc Leenders	224791	2390

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EXAMINER

WILLIAMS, KEVIN D

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/693,730	Applicant(s) LEENDERS ET AL.	
	Examiner Kevin D. Williams	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/24/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 15 and 16 are objected to because of the following informalities:

Claims 15 and 16 recite the limitation "the background" in line 3 of both claims.

There is insufficient antecedent basis for the limitation in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Verschueren (US 6,820,552).

Verschueren teaches a process for the printing of a receiving medium with a functional pattern comprising in any order the steps of applying a printing ink to a printing plate (col. 3, lines 16-20) and wetting said printing plate with an aqueous fountain medium containing a solution or a dispersion containing at least one moiety having at least coloring, pH-indicating, whitening, fluorescent phosphorescent, X-ray

phosphor or conductive properties (col. 5, lines 10-25), the moiety being an intrinsically conductive polymer being selected from the group consisting of polyanilines, polyaniline derivatives, polypyrroles, polypyrrole derivatives, polythiophenes and polythiophene derivatives (col. 5, lines 10-25).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 8, 9, 11, 13, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verschueren in view of Louwet (US 6,632,472).

Verschueren teaches the claimed invention except for the conductive polymer being a polymer or copolymer of a 3,4-dialkoxythiophene in which the two alkoxy groups may be the same or different or together represent an optionally substituted oxy-alkylene-oxy bridge, the fountain medium further containing a di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound being selected from the group consisting of 1,2-propandiol, propylene glycol, diethylene glycol, N-methyl pyrrolidinone and di (ethylene glycol) ethyl ether acetate, the fountain medium further comprising an aprotic organic compound with a dielectric constant ≥ 15 and a non-ionic or anionic surfactant, where the fountain medium contains a dye and/or pigment such that the color tone of the ink and the background cannot be distinguished

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by the human eye, and where the printing ink contains a dye and/or pigment such that the color tone of the ink and the background cannot be distinguished by the human eye.

Louwet teaches a conductive polymer being a polymer or copolymer of a 3,4-dialkoxythiophene in which the two alkoxy groups may be the same or different or together represent an optionally substituted oxy-alkylene-oxy bridge (col. 6, lines 36-44), the fountain medium further containing a di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound being selected from the group consisting of 1,2-propandiol, propylene glycol, diethylene glycol, N-methyl pyrrolidinone and di (ethylene glycol) ethyl ether acetate (col. 12, lines 1-5), the fountain medium further comprising an aprotic organic compound with a dielectric constant ≥ 15 (col. 4, lines 30-34) and a non-ionic or anionic surfactant (col. 11, lines 1-3), where the fountain medium contains a dye and/or pigment such that the color tone of the ink and the background cannot be distinguished by the human eye, and where the printing ink contains a dye and/or pigment such that the color tone of the ink and the background cannot be distinguished by the human eye.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Verschueren to have the solution as taught by Louwet, in order to reduce the amount of energy required to dissolve the ingredients as taught by Louwet.

6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verschueren in view of MacDiarmid (US 2002/0083858).

Verschueren teaches the claimed invention except for the intrinsically conductive polymer being selected from the group consisting of homopolymers of (3,4-

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methylenedioxy-thiophene), (3,4-methylenedioxythiophene) derivatives, (3,4-ethylenedioxythiophene), (3,4-ethylenedioxythiophene) derivatives, (3,4-propylenedioxythiophene), (3,4-propylenedioxythiophene) derivatives, (3,4-butylenedioxythiophene) and (3,4-butylenedioxythiophene) derivatives and copolymers thereof, the fountain medium further containing a polyanion being a poly(styrenesulfonate).

MacDiarmid teaches a printing device having an intrinsically conductive polymer being selected from the group consisting of homopolymers of (3,4-methylenedioxy-thiophene), (3,4-methylenedioxythiophene) derivatives, (3,4-ethylenedioxythiophene), (3,4-ethylenedioxythiophene) derivatives, (3,4-propylenedioxythiophene), (3,4-propylenedioxythiophene) derivatives, (3,4-butylenedioxythiophene) and (3,4-butylenedioxythiophene) derivatives and copolymers thereof ([0147]), the fountain medium further containing a polyanion being a poly(styrenesulfonate) ([0241]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Verschueren to have the conductive polymer as taught by MacDiarmid, in order to utilize a polymer with increased conductability.

7. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verschueren in view of Louwet as applied to claims 4, 8, 9, 11, 13, 15, and 16 above, and further in view of Domoto (US 6,827,435).

Verschueren in view of Louwet teaches the claimed invention except for a step subsequent to printing in which the receiving medium within 10 minutes of printing is heated to a temperature of 100 to 250°C and to a temperature of $\leq 150^{\circ}\text{C}$.

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Domoto teaches a printing device having a step subsequent to printing in which a receiving medium within 10 minutes of printing is heated to a temperature of 100 to 250°C and to a temperature of $\leq 150^{\circ}\text{C}$ (col. 6, lines 30-34).

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Verschueren to have the heating of the receiving medium as taught by Domoto, in order to prevent the printed images from smearing.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Verschueren in view of Uchida (US 5,163,999).

Verschueren teaches the claimed invention except for the fountain medium having a viscosity at 25°C after stirring to constant viscosity of 30 mPa.s as measured according to DIN 53211.

Uchida teaches a fountain medium having a viscosity at 25°C after stirring to constant viscosity of 30 mPa.s as measured according to DIN 53211.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Verschueren to have the fountain medium as taught by Uchida, in order to ensure that the fountain medium is of appropriate viscosity for producing quality print images.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (571) 272-2172. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KDW

March 3, 2005



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